FIG. 1

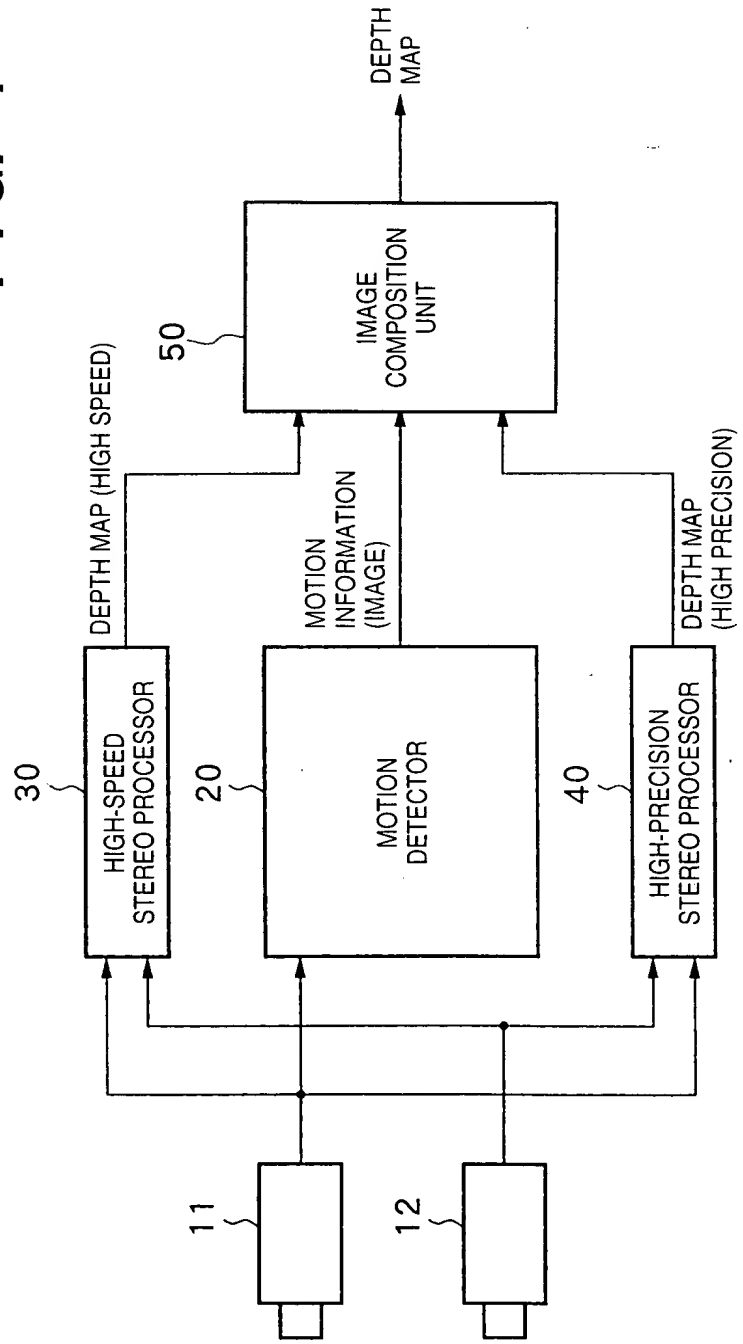

DEPTH MAP
IMAGE COMPOSITION UNIT
50
DEPTH MAP (HIGH SPEED)
MOTION INFORMATION (IMAGE)
DEPTH MAP (HIGH PRECISION)
HIGH-SPEED STEREO PROCESSOR
30
MOTION DETECTOR
20
HIGH-PRECISION STEREO PROCESSOR
40
11
12

FIG. 2

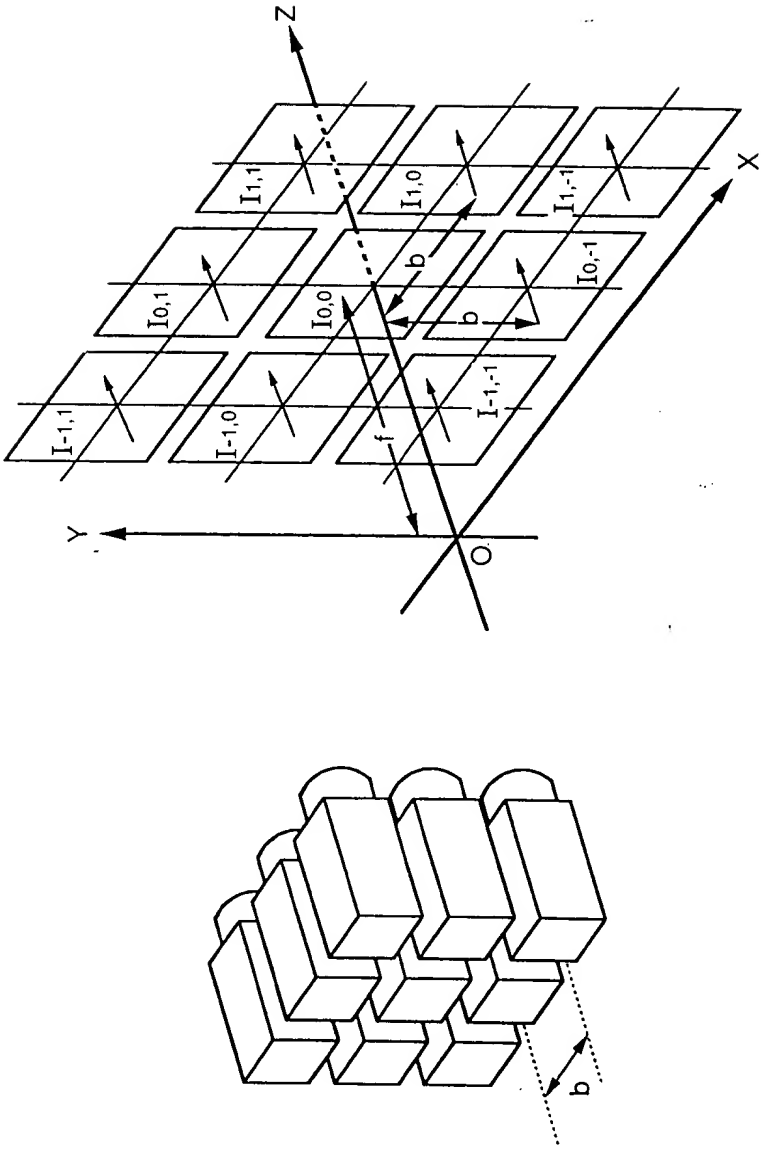


FIG. 3

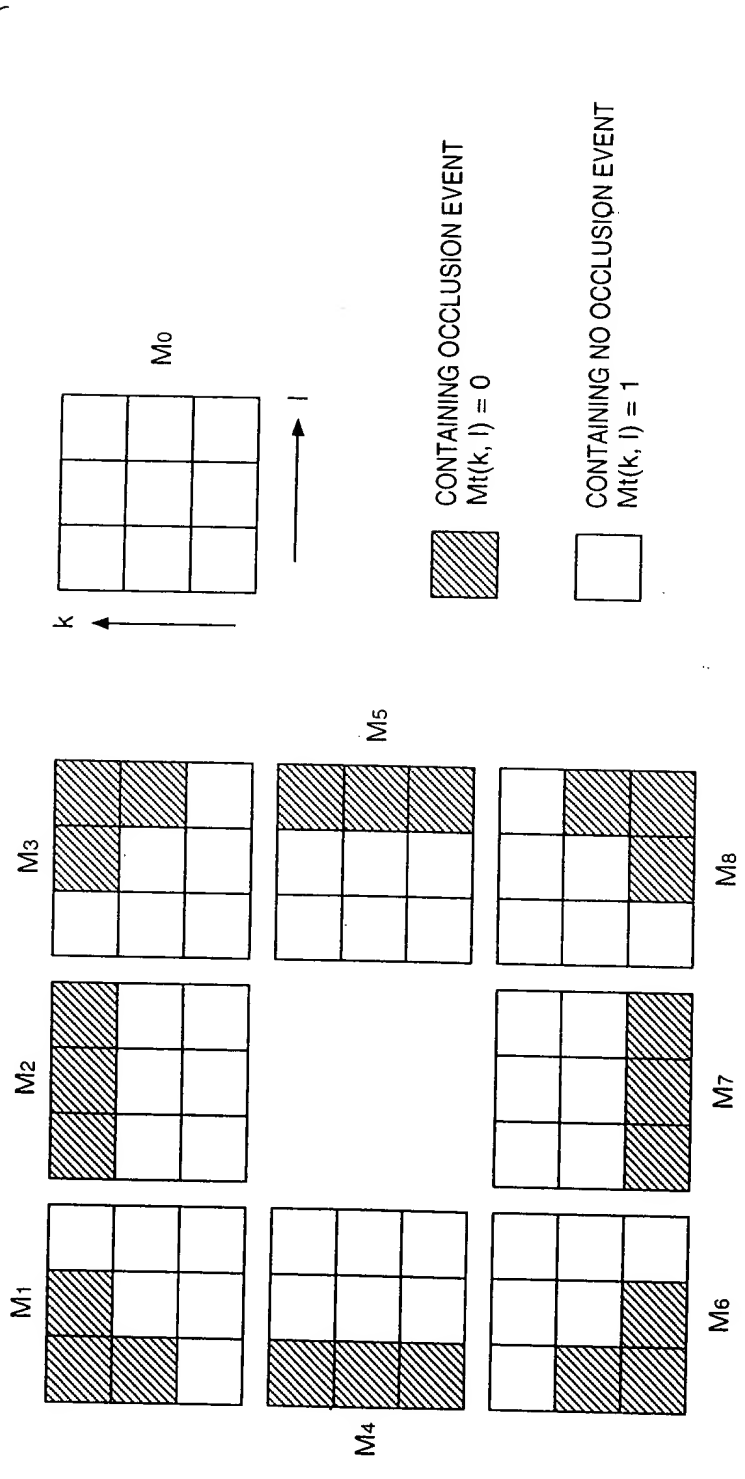

M0
k
l
CONTAINING OCCLUSION EVENT
Mt(k, l) = 0
CONTAINING NO OCCLUSION EVENT
Mt(k, l) = 1
M1
M2
M3
M4
M5
M6
M7
M8

FIG. 4

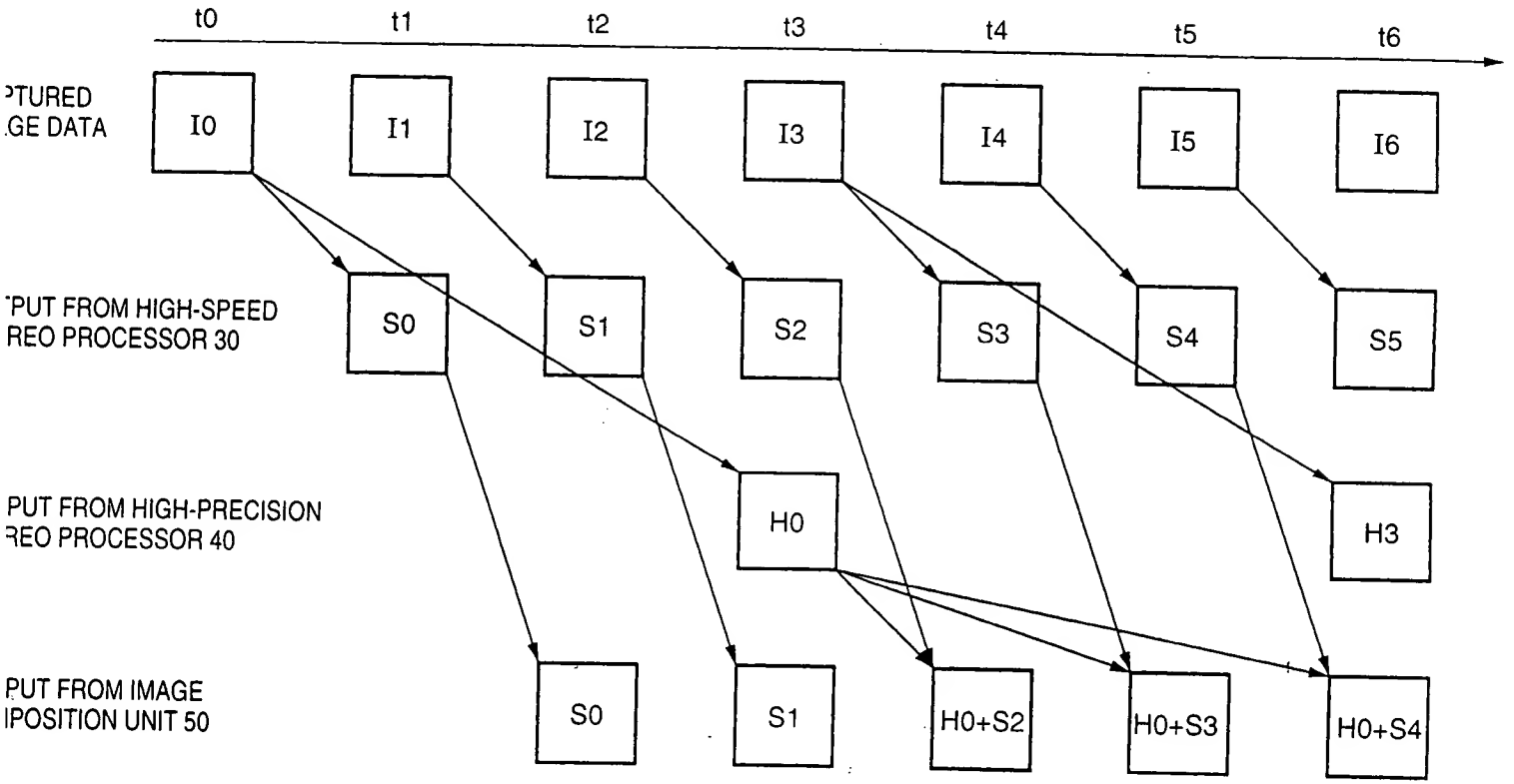

t0
t1
t2
t3
t4
t5
t6
PTURED
GE DATA
I0
I1
I2
I3
I4
I5
I6
PUT FROM HIGH-SPEED
REO PROCESSOR 30
S0
S1
S2
S3
S4
S5
PUT FROM HIGH-PRECISION
REO PROCESSOR 40
H0
H3
PUT FROM IMAGE
IPOSITION UNIT 50
S0
S1
H0+S2
H0+S3
H0+S4

FIG. 5

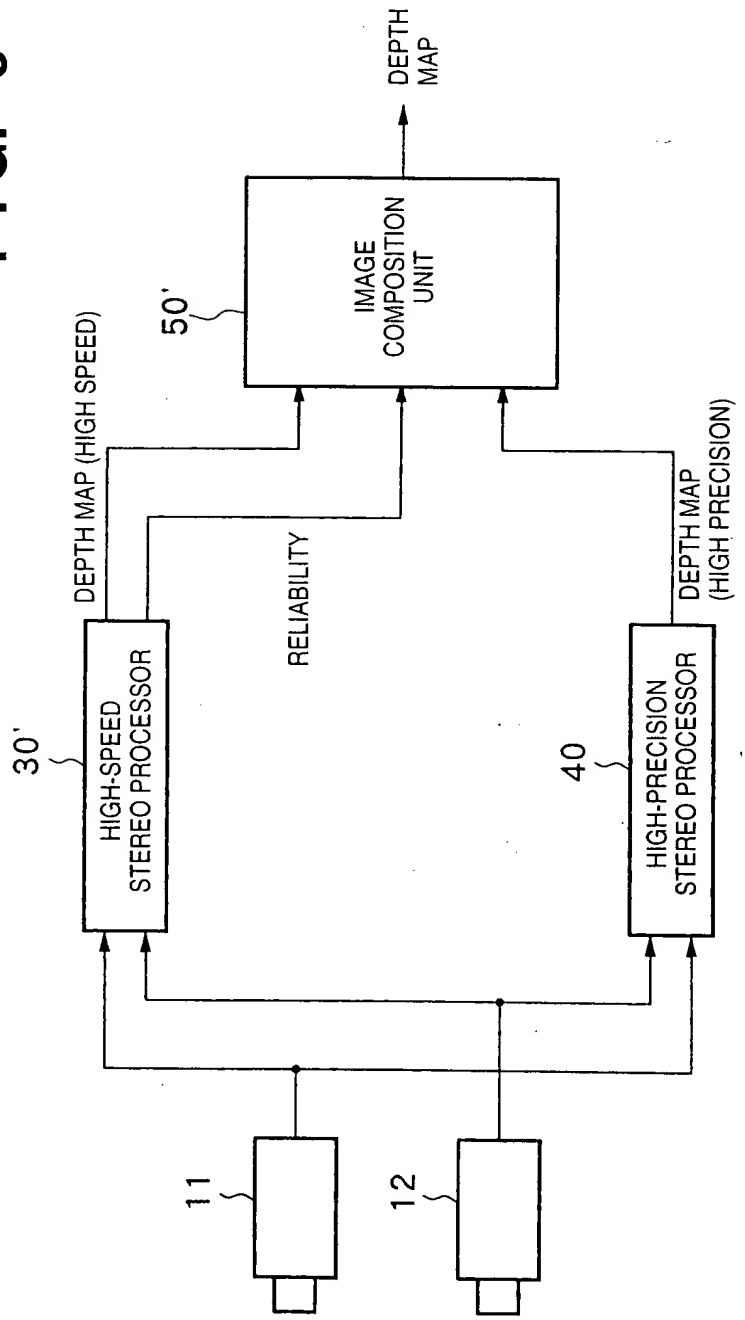

DEPTH MAP
IMAGE COMPOSITION UNIT
50'
DEPTH MAP (HIGH SPEED)
RELIABILITY
DEPTH MAP (HIGH PRECISION)
HIGH-SPEED STEREO PROCESSOR
30'
HIGH-PRECISION STEREO PROCESSOR
40
11
12

FIG. 6

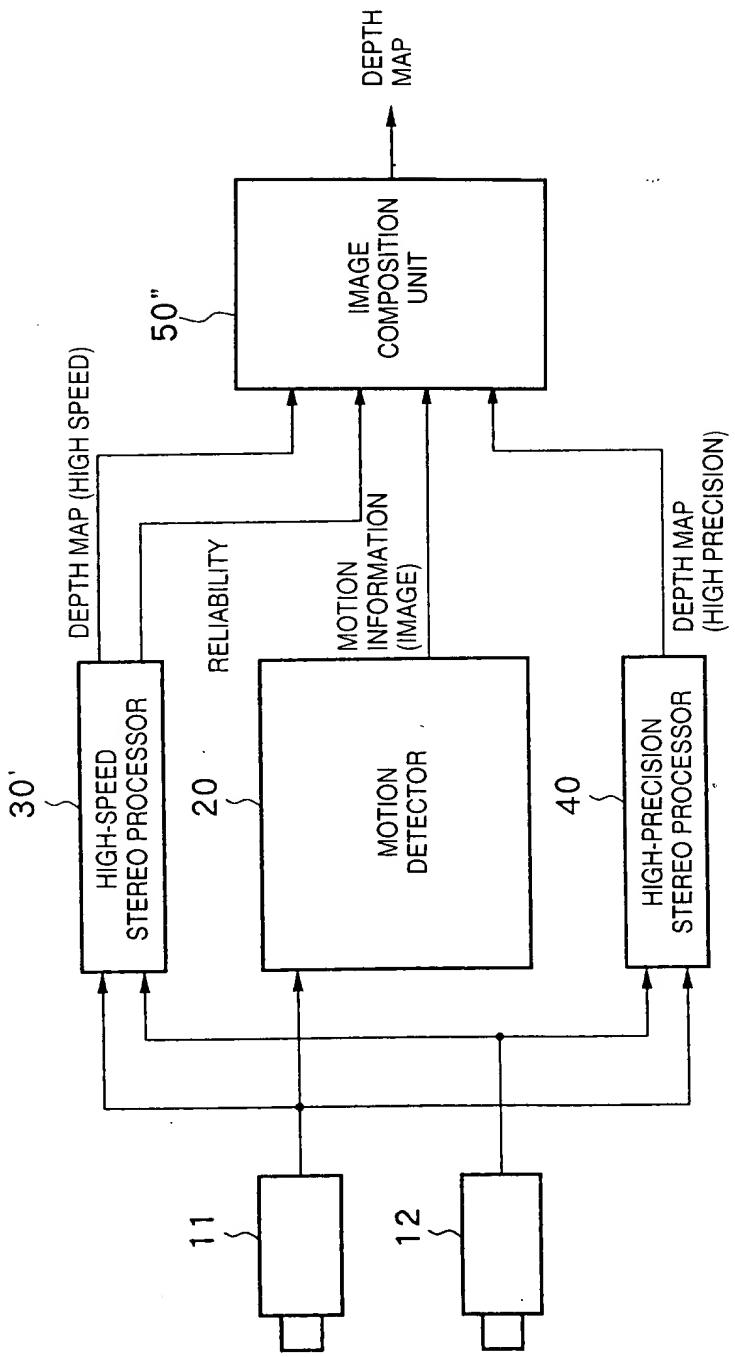

DEPTH MAP
IMAGE COMPOSITION UNIT
50"
DEPTH MAP (HIGH SPEED)
RELIABILITY
MOTION INFORMATION (IMAGE)
DEPTH MAP (HIGH PRECISION)
HIGH-SPEED STEREO PROCESSOR
MOTION DETECTOR
HIGH-PRECISION STEREO PROCESSOR
30'
20
40
11
12

FIG. 7

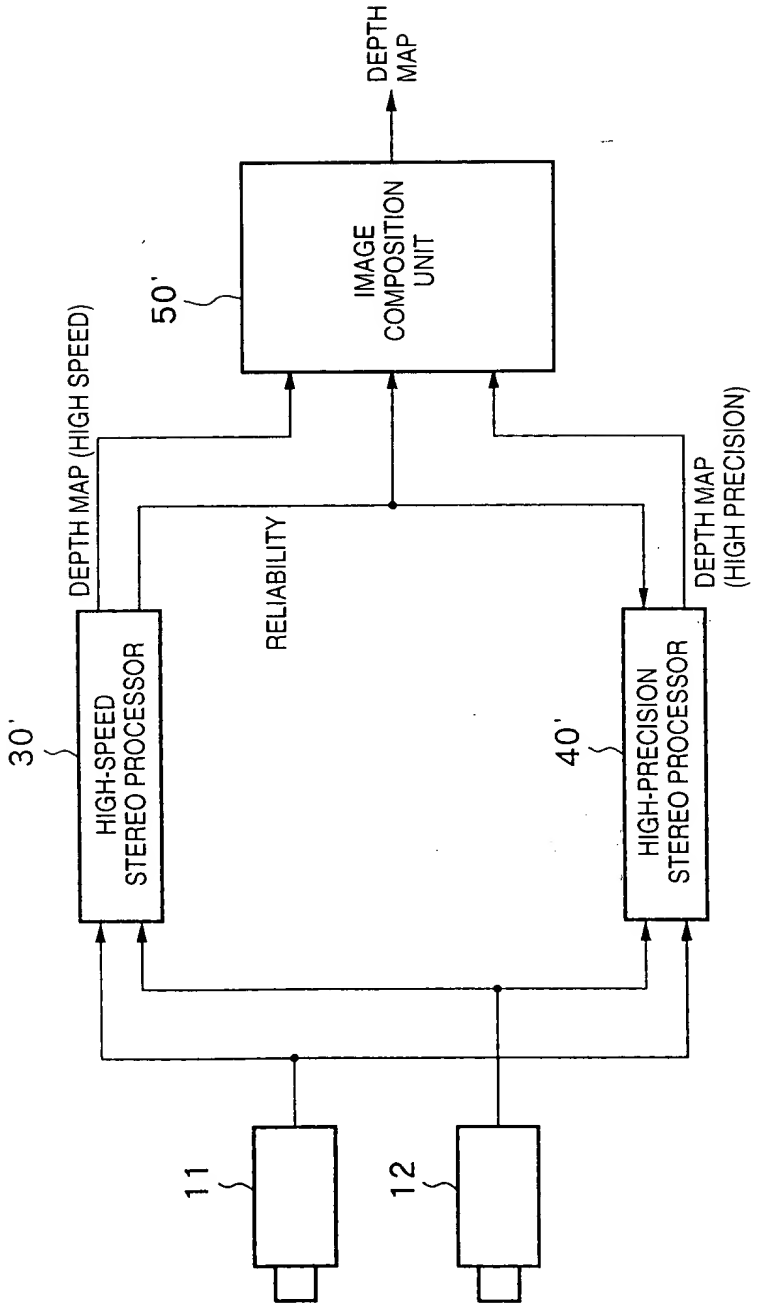
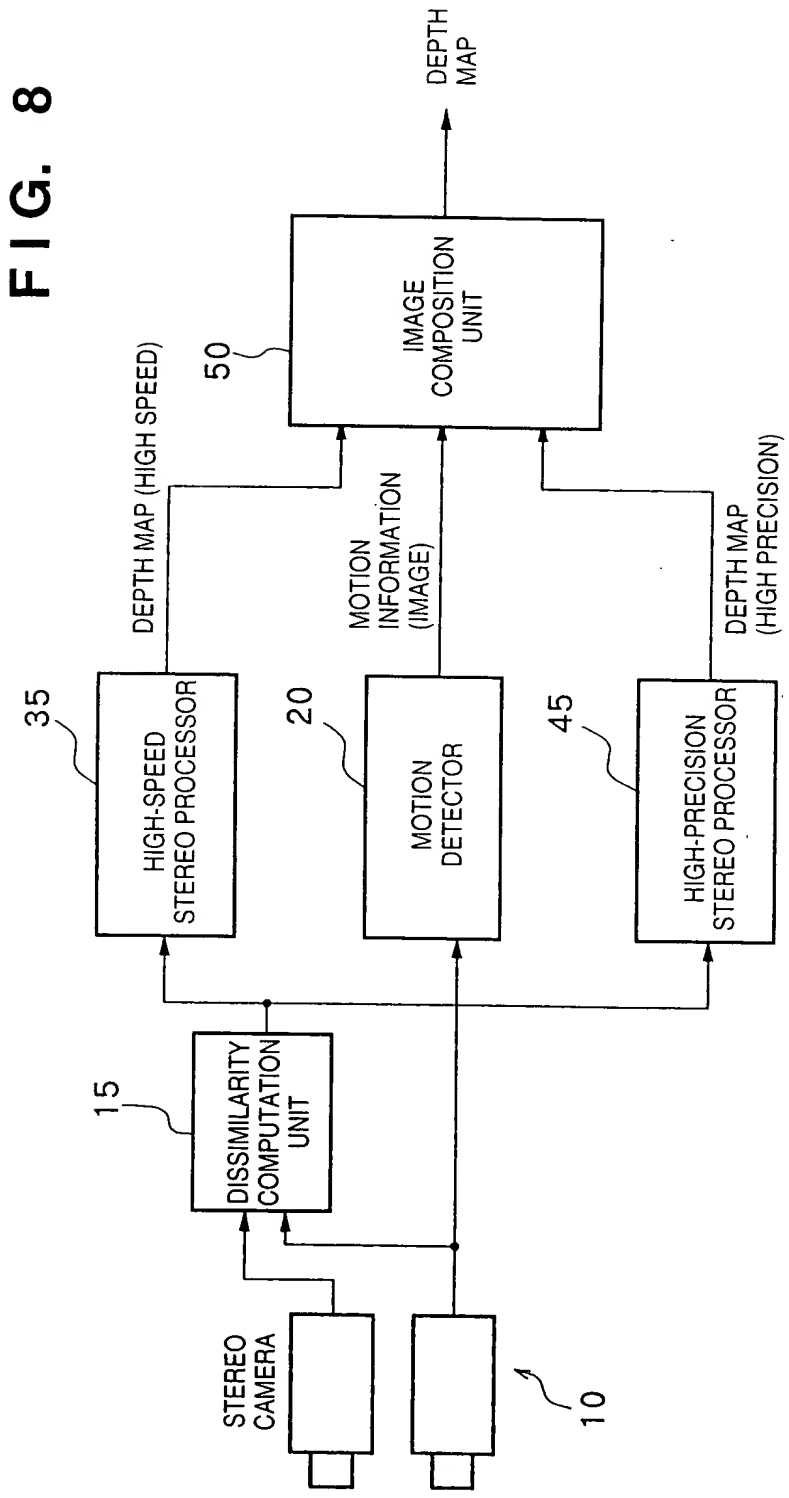

DEPTH MAP
IMAGE COMPOSITION UNIT
50'
DEPTH MAP (HIGH SPEED)
RELIABILITY
DEPTH MAP (HIGH PRECISION)
30'
HIGH-SPEED STEREO PROCESSOR
40'
HIGH-PRECISION STEREO PROCESSOR
11
12

FIG. 8


DEPTH MAP
IMAGE COMPOSITION UNIT
50
DEPTH MAP (HIGH SPEED)
MOTION INFORMATION (IMAGE)
DEPTH MAP (HIGH PRECISION)
35
HIGH-SPEED STEREO PROCESSOR
20
MOTION DETECTOR
45
HIGH-PRECISION STEREO PROCESSOR
15
DISSIMILARITY COMPUTATION UNIT
STEREO CAMERA
10